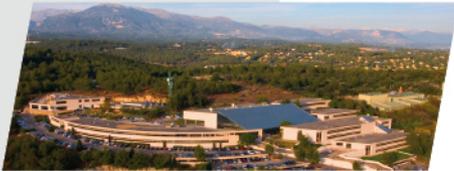




Flexibility of Software Radio Architectures

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Unleashing the potential of open-source in the 5G arena

Software Radio, Flexibility, Commoditization of Real-Time RF and Open-Source

- **Today it is feasible to put a compliant 4G eNodeB and EPC in a commodity x86 or ARM-based computer (or data center for a pool of eNodeBs)**
 - 100% software MODEM using SIMD integer arithmetic
 - Commodity RF (i.e. National Instruments/Ettus USRP, BladeRF)
 - ODROID XU3/4 + BladeRF = 5/10 MHz eNodeB for 600\$
 - Gigabyte Brix + USRP B210 = 20 MHz eNodeB 2x2 MIMO for 1200\$
- **Coupling this with an open-source community makes for a very disruptive technology from the perspective of traditional equipment vendors**
 - What we need
 - Community of hackers, academics and major industrials wanting to change the wireless world
 - What we would become
 - A strong voice and maybe a game-changer in the cellular world
 - ☞ Real impact from academia on 3GPP systems

RRH to Datacenter Testbed Architecture for Research

